NORTH CENTRAL FOREST EXPERIMENT STATION

Research Note NC-276

1992 FOLWELL AVE. ST. PAUL, MN 55108 FOREST SERVICE-U.S.D.A.

1982

MICHIGAN SAW LOG PRODUCTION AND SAWMILL INDUSTRY, 1978

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ABSTRACT.—Michigan's saw log production climbed to 563 million board feet in 1978 from 514 million board feet in 1977. Eight percent was shipped to out-of-State mills. Michigan's 341 active sawmills received 525 million board feet of logs; only 1 percent came from other States.

KEY WORDS: Exports, lumber, aspen, oak, maple, pine.

Michigan loggers harvested 563 million board feet of saw logs in 1978, up 10 percent from 1977 (table 1). Eighty-eight percent was hardwood. Nearly three-fifths of the harvest was from three species—aspen, hard maple, and red oak. White pine was the major softwood cut. Major harvest gains were in aspen, maple, and oak; declines were concentrated in pine, spruce, and elm.

Demand was high for pallets, furniture stock, and railroad ties. Markets were good for construction lumber as national housing starts pushed above the 2 million mark in 1978 for the first time since 1973.

Out-of-State sawmills procured 43 million board feet of Michigan logs (table 2, see page 4). Wisconsin was the primary customer, followed by Indiana and Kentucky. The western Upper Peninsula (UP) sup-

Table 1.-- Michigan saw log production by species, 1977 and 1978

(In thousand board feet)[1/]

Species	1977	1978	Change
SOFTWOODS			
Cedar	4,228	5,498	1,270
Balsam fir	3,439	3,396	-43
Hemlock	8,724	8,907	183
Jack pine	15,697	9,821	-5,876
Red pine	21,973	13,231	-8,742
White pine	30,841	22,276	-8,565
Spruce	6,595	1,770	-4,825
Tamarack	0	221	221
Total	91,497	65,120	-26,377
HARDWOODS			
Ash	15,465	18,664	3,199
Aspen	98,361	127,078	28,717
Balsam poplar	244	1,450	1,206
Basswood	15,480	19,364	3,884
Beech	19,035	17,987	-1,048
Paper birch	9,870	6,646	-3,224
Yellow birch	4,018	8,087	4,069
Cottonwood	3,139	5,848	2,709
Elm	19,202	12,481	-6,721
Hickory	681	1,435	754
Hard maple	90,352	104,075	13,723
Soft maple	35,903	47,465	11,562
Red oak	82,766	93,495	10,729
White oak	22,590	29,105	6,515
Walnut	271	855	584
Other species	5,082	4,168	-914
Total	422,459	498,203	75,744
All species	513,956	563,323	49,367

[1/] International 1/4-inch rule.

Table 3.--Saw log pro

Unit and county	All species	Cedar	Balsam fir	Hemlock	Jack pine	Red pine	White pine	Spruce	Tama-rack
E. UPPER PENINSULA									
Alger	20,402	122	0	813	0	120	1,029	56	0
Chippewa	5,950	286	134	30	17	352	465	154	4
Delta	3,852	712	12	12	0	156	328	3	0
Luce	15,938	81	27	196	823	721	1,878	88	4
Mackinac	6,241	242	177	21	7	88	172	240	4
Menominee	14,744	1,374	139	1,311	1	287	1,312	168	140
Schoolcraft	13,485	132	0	28	260	1,426	1,426	32	0
Total	80,612	2,949	489	2,411	1,108	3,150	6,610	741	152
W. UPPER PENINSULA									
Baraga	10,807	36	3	1,169	1	88	620	52	0
Dickinson	5,504	329	6	2	521	1,026	1,244	70	0
Gogebic	21,860	19	17	1,709	462	716	1,739	104	17
Houghton	26,202	23	16	287	900	1,095	2,443	67	0
Iron	15,265	2	16	383	282	775	983	161	2
Keweenaw	6,251	0	0	264	0	104	525	107	0
Marquette	23,317	78	1	1,543	420	1,166	2,502	346	0
Ontonagon	12,797	10	4	520	206	353	800	55	5
Total	122,003	497	63	5,877	2,792	5,323	10,856	962	24
N. LOWER PENINSULA									
Alcona	10,102	0	0	0	24	603	579	0	0
Alpena	3,826	250	500	0	64	18	8	0	0
Antrim	6,968	0	0	127	0	100	14	0	0
Arenac	4,535	0	0	0	34	25	31	0	0
Bay	660	0	0	0	0	58	67	0	0
Benzie	2,244	0	0	10	0	15	17	0	0
Charlevoix	3,313	0	0	116	0	50	5	0	0
Cheboygan	17,890	208	563	19	167	107	89	13	40
Clare	10,871	10	10	0	353	78	20	0	0
Crawford	10,835	0	0	0	625	796	695	0	0
Emmet	6,484	0	0	41	4	66	15	0	0
Gladwin	8,497	15	15	0	23	63	30	0	0
Grand Traverse	1,074	0	0	0	0	14	127	0	0
Iosco	5,415	0	0	0	75	287	342	0	0
Isabella	4,122	0	0	0	0	25	10	0	0
Kalkaska	4,532	0	0	16	339	112	59	0	0
Lake	8,142	0	0	0	611	107	6	0	0
Leelanau	3,699	0	0	205	0	8	98	54	0
Manistee	1,273	0	0	0	0	27	18	0	0
Mason	4,487	0	0	0	0	62	8	0	0
Mecosta	6,945	0	0	4	0	49	7	0	0
Midland	10,731	0	0	0	250	33	17	0	0
Missaukee	2,860	2	2	4	0	27	36	0	0
Montmorency	13,135	460	750	0	260	222	102	0	0
Newaygo	14,961	0	0	0	0	150	605	0	0
Oceana	10,337	0	0	0	0	50	100	0	0
Ogemaw	8,505	0	0	0	77	182	168	0	5
Osceola	11,596	0	0	69	0	226	149	0	0
Oscoda	5,122	0	0	0	128	195	125	0	0
Otsego	7,229	3	0	0	95	95	18	0	0
Presque Isle	7,344	1,100	1,000	0	65	231	185	0	0
Roscommon	7,582	2	2	5	2,727	495	150	0	0
Wexford	1,836	2	2	3	0	63	482	0	0
Total	227,152	2,052	2,844	619	5,921	4,639	4,382	67	45
S. LOWER PENINSULA									
Allegan	6,928	0	0	0	0	0	81	0	0
Barry	7,641	0	0	0	0	0	0	0	0
Berrien	1,880	0	0	0	0	0	0	0	0
Branch	2,024	0	0	0	0	0	0	0	0
Calhoun	11,082	0	0	0	0	0	0	0	0
Cass	3,902	0	0	0	0	0	0	0	0
Clinton	2,607	0	0	0	0	0	0	0	0
Eaton	4,274	0	0	0	0	0	0	0	0
Genessee	880	0	0	0	0	0	0	0	0
Gratiot	3,880	0	0	0	0	0	0	0	0
Hillsdale	3,241	0	0	0	0	0	0	0	0
Huron	1,615	0	0	0	0	0	0	0	0
Ingham	4,414	0	0	0	0	0	0	0	0
Ionia	7,485	0	0	0	0	0	0	0	0
Jackson	6,114	0	0	0	0	0	0	0	0
Kalamazoo	911	0	0	0	0	0	0	0	0
Kent	10,336	0	0	0	0	29	36	0	0
Lapeer	3,624	0	0	0	0	0	0	0	0
Lenawee	2,559	0	0	0	0	0	0	0	0
Livingston	608	0	0	0	0	0	0	0	0
Macomb	250	0	0	0	0	0	0	0	0
Monroe	1,864	0	0	0	0	0	0	0	0
Montcalm	9,600	0	0	0	0	25	85	0	0
Muskegon	4,476	0	0	0	0	0	180	0	0
Oakland	1,285	0	0	0	0	0	0	0	0
Ottawa	852	0	0	0	0	0	14	0	0
Saginaw	4,027	0	0	0	0	0	15	0	0
St. Clair	6,427	0	0	0	0	0	0	0	0
St. Joseph	3,280	0	0	0	0	0	0	0	0
Sanilac	1,765	0	0	0	0	0	0	0	0
Shiawassee	2,589	0	0	0	0	0	0	0	0
Tuscola	2,846	0	0	0	0	0	10	0	0
Van Buren	4,814	0	0	0	0	65	7	0	0
Washtenaw	3,419	0	0	0	0	0	0	0	0
Wayne	57	0	0	0	0	0	0	0	0
Total	133,556	0	0	0	0	119	428	0	0
State total	563,323	5,498	3,396	8,907	9,821	13,231	22,276	1,770	221

1/International 1/4-inch rule.

...nd species, Michigan, 1978

...ge group

Bass-wood	Beech	White birch	Yellow birch	Cotton-wood	Elm	Hickory	Hard maple	Soft maple	Red oak	White oak	Walnut	Other hard-woods
252	1,961	50	554	0	881	0	10,411	1,841	54	0	0	135
424	300	283	11	0	221	0	1,100	129	10	0	0	0
201	47	331	161	0	455	0	934	192	12	0	0	22
85	2,952	46	534	0	305	0	6,202	1,069	150	0	0	63
263	330	328	65	0	521	0	2,120	537	0	0	0	0
847	169	845	348	0	1,099	0	3,559	512	27	0	0	13
117	2,247	373	369	0	393	0	4,936	1,296	33	0	0	32
2,174	10,006	2,256	2,042	0	3,875	0	29,262	5,576	286	0	0	265
196	5	29	723	0	758	0	4,149	495	155	0	0	16
178	0	295	92	0	513	0	664	72	52	0	0	0
694	0	228	702	0	921	0	5,774	316	54	0	0	0
492	0	390	804	0	306	0	6,122	1,163	1,242	85	0	5
656	0	172	956	0	2,670	0	3,997	375	102	0	0	62
105	0	0	630	0	190	0	3,006	628	509	0	0	0
701	476	271	1,405	0	1,083	0	10,856	1,200	257	8	0	24
453	0	75	570	0	720	0	4,720	728	91	0	0	16
3,335	481	1,460	5,882	0	7,161	0	39,288	4,977	2,462	93	0	123
80	31	127	0	0	11	0	64	286	1,572	227	0	0
0	8	28	0	0	16	0	69	1,054	505	53	0	0
802	154	104	0	0	422	0	1,920	310	800	0	0	8
19	0	54	0	260	5	0	88	588	816	85	0	2
4	0	0	0	5	0	0	54	130	199	70	0	0
497	159	9	0	0	0	0	940	65	61	0	0	157
460	93	0	0	0	136	0	1,529	155	0	0	0	0
1,137	467	426	80	0	230	0	1,471	657	79	0	0	9
125	10	40	0	100	0	0	488	905	1,415	134	0	0
135	135	104	0	0	67	0	211	172	3,081	27	0	0
962	555	80	5	0	86	0	1,522	267	59	20	0	15
59	0	118	0	315	1	0	171	813	1,377	348	0	0
140	30	0	0	0	0	0	340	75	50	0	0	60
9	5	80	0	235	13	0	110	452	788	142	0	1
242	84	5	0	151	0	18	826	790	929	358	0	0
0	159	4	0	0	13	0	561	166	1,415	250	0	0
232	143	0	0	0	0	0	344	431	3,684	1,000	0	24
394	110	13	0	0	108	0	1,298	466	782	0	0	58
55	0	0	0	0	0	0	144	73	546	0	0	27
224	269	0	0	0	0	0	517	532	1,357	400	0	12
215	160	14	0	81	9	21	988	952	2,464	848	0	0
286	109	158	0	952	0	18	500	1,782	2,072	931	0	0
223	164	8	0	0	2	0	233	182	423	250	0	32
390	182	385	0	0	54	0	175	450	736	111	0	0
749	161	0	0	31	0	18	973	1,301	7,761	1,062	0	0
595	395	0	0	0	0	0	2,050	1,475	3,182	850	0	0
142	35	240	0	0	0	0	72	216	1,191	100	0	0
297	329	35	0	16	18	18	871	493	4,219	738	0	15
85	0	131	0	0	0	0	46	92	1,415	0	0	0
512	356	288	50	0	166	0	924	407	925	0	0	2
574	117	182	0	0	8	0	185	187	9	69	0	0
9	10	33	0	0	4	0	90	179	1,492	50	0	0
61	70	12	0	0	3	0	174	219	223	0	0	21
1,924	4,500	2,678	135	2,146	1,372	93	19,948	16,322	45,627	8,123	0	443
159	79	0	0	6	0	39	1,021	831	2,659	930	19	432
220	128	0	0	6	0	53	994	1,059	2,810	1,135	12	555
69	84	46	0	32	1	33	228	229	604	90	137	90
57	62	46	0	18	0	17	252	276	682	329	137	9
148	579	0	0	15	0	162	951	1,983	4,051	1,804	3	512
122	155	0	3	50	7	99	304	291	2,511	173	4	108
113	43	0	0	32	0	41	338	288	1,452	187	0	10
124	69	0	0	7	0	39	629	788	1,299	593	4	398
60	0	0	0	60	0	0	125	205	260	110	0	0
242	59	0	0	91	0	18	615	690	863	543	0	0
111	47	46	0	33	0	35	369	507	1,110	554	152	11
50	0	0	0	320	0	0	200	400	250	160	0	0
220	145	0	0	6	0	94	742	830	1,413	690	7	36
242	169	0	0	52	0	46	1,270	1,289	2,354	895	1	426
81	156	46	0	0	0	72	436	972	1,864	1,800	143	76
22	7	0	0	3	0	3	166	237	367	94	1	4
326	228	0	0	13	0	32	1,245	1,230	4,580	1,467	1	455
183	0	0	0	483	4	30	296	697	742	788	0	28
105	44	22	0	240	0	41	166	358	753	480	18	21
14	124	0	0	0	0	14	14	138	207	0	0	28
10	0	0	0	10	0	0	0	50	50	100	0	0
70	20	0	0	44	14	44	90	242	685	505	13	10
402	163	0	0	230	0	32	1,278	1,159	3,113	1,092	1	14
28	45	0	0	25	0	0	375	510	2,033	562	13	0
65	0	0	0	0	0	0	205	310	315	290	0	0
21	89	0	0	0	0	0	125	110	286	137	0	0
301	64	0	0	410	0	14	561	788	805	569	0	0
300	0	0	25	495	0	0	440	1,166	1,019	2,312	0	0
216	215	0	0	39	11	80	445	398	1,198	478	0	68
60	0	0	0	340	0	0	115	350	275	375	0	0
200	87	0	0	106	0	32	503	339	762	426	0	0
61	0	0	0	362	0	0	215	857	310	185	0	0
172	82	46	0	75	4	3	789	537	2,104	394	168	25
157	57	0	0	70	25	262	75	476	1,328	641	21	21
0	0	0	0	29	7	7	0	0	6	1	0	0
731	3,000	252	28	3,702	73	1342	15,577	20,590	45,120	20,889	855	3,337
364	17,987	6,646	8,087	5,848	12,481	1,435	104,075	47,465	93,495	29,105	855	4,168

Table 2.--Saw log production by species and State of destination, Michigan, 1978

(In thousand board feet)[1/]

Species	All States	State			
		Michigan	Wisconsin	Indiana	Kentucky
SOFTWOODS					
Cedar	5,498	5,496	2	0	0
Balsam fir	3,396	3,355	41	0	0
Hemlock	8,907	7,059	1,848	0	0
Jack pine	9,821	6,740	3,081	0	0
Red pine	13,231	8,913	4,318	0	0
White pine	22,276	16,135	6,141	0	0
Spruce	1,770	1,546	224	0	0
Tamarack	221	221	0	0	0
Total	65,120	49,465	15,655	0	0
HARDWOODS					
Ash	18,664	18,437	59	168	0
Aspen	127,078	108,176	18,890	12	0
Balsam poplar	1,450	1,450	0	0	0
Basswood	19,364	18,657	587	120	0
Beech	17,987	17,738	0	249	0
Paper birch	6,646	6,068	578	0	0
Yellow birch	8,087	7,695	389	3	0
Cottonwood	5,848	5,735	0	113	0
Elm	12,481	11,357	1,108	16	0
Hickory	1,435	1,220	0	215	0
Hard maple	104,075	102,167	1,610	298	0
Soft maple	47,465	46,892	215	358	0
Red oak	93,495	91,528	253	1,714	0
White oak	29,105	28,653	0	452	0
Walnut	855	806	0	14	35
Other species	4,168	3,947	28	193	0
Total	498,203	470,526	23,717	3,925	35
All species	563,323	519,991	39,372	3,925	35

[1/] International 1/4-inch rule

plied more than four-fifths of these exports. Pine and aspen comprised three-fourths of the export volume.

Compared to 1977, saw log output rose 68 million board feet in the Lower Peninsula (LP) and fell 19 million board feet in the UP. The northern LP supplied more than two-thirds of the aspen and continued to be the leading saw log producing region. UP producers cut two-thirds of the hard maple; LP loggers cut 97 percent of the red oak.

Producers harvested more than 20 million board feet of saw logs in each of four UP Counties—Houghton, Marquette, Gogebic, and Alger (table 3).

Michigan's 341 active sawmills (21 more than in 1977) received 525 million board feet of saw logs, up 15 percent from 1977. Only 5 million board feet came from other States (table 4). Average annual lumber production per mill continued to climb, reaching 1.54 million board feet. Nineteen mills each sawed more than 5 million board feet and 127 others sawed between 1 and 5 million board feet.

All active sawmills using Michigan logs and bolts were canvassed by means of a formal questionnaire. Canvassing in Michigan was supervised by the Michigan Department of Natural Resources (DNR) with personal contacts at sawmills by DNR personnel and forestry consultants. For a few Michigan mills that did not furnish complete data, DNR wood utilization specialists provided estimates based on prior knowledge and contacts. The North Central Forest Experiment Station canvassed out-of-State sawmills using Michigan logs and edited and compiled the data.

Table 4.--Saw log receipts in Michigan by species and State of origin, 1978

(In thousand board feet)[1/]

Species	All States	State		
		Michigan	Wisconsin	Ohio
SOFTWOODS				
Cedar	5,598	5,496	102	0
Balsam fir	3,361	3,355	6	0
Hemlock	7,077	7,059	18	0
Jack pine	6,740	6,740	0	0
Red pine	8,940	8,913	27	0
White pine	16,313	16,135	178	0
Spruce	1,587	1,546	41	0
Tamarack	227	221	6	0
Total	49,843	49,465	378	0
HARDWOODS				
Ash	18,713	18,437	177	99
Aspen	108,562	108,176	386	0
Balsam poplar	1,450	1,450	0	0
Basswood	19,015	18,657	289	69
Beech	17,760	17,738	3	19
Paper birch	6,136	6,068	68	0
Yellow birch	7,924	7,695	229	0
Cottonwood	5,765	5,735	0	30
Elm	12,508	11,357	1,151	0
Hickory	1,250	1,220	0	30
Hard maple	103,655	102,167	1,458	30
Soft maple	47,214	46,892	123	199
Red oak	91,978	91,528	102	348
White oak	28,802	28,653	0	149
Walnut	816	806	0	10
Other species	3,957	3,947	0	10
Total	475,505	470,526	3,986	993
All species	525,348	519,991	4,364	993

[1/] International 1/4-inch rule

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